

943,107

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DRAWINGS ATTACHED

943,107



Date of filing Complete Specification: June 20, 1962.

Application Date: June 23, 1961.

No. 22769/61.

Complete Specification Published: Nov. 27, 1963.

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Index at acceptance:—Classes E1, G(43, 44B); E1, B(21C, 21F, 21G, 25, 50); F4, R(5C7, 5C14B).

International Classification:—E 01 f (E 02 d, E 04 h, F 21 f).

COMPLETE SPECIFICATION

Improvements in Posts for Signs or the like

PATENTS ACT 1949

SPECIFICATION NO 943107

The following amendments were allowed under Section 29 on 24 March 1975

Page 1, line 21. *after invention insert* there is provided

Page 1, line 23, page 3, line 51. *after transparent insert* plastics

Page 1, line 26, page 3, line 54. *after member insert* within the post, the said load-carrying member comprising at least two parallel elongate members, connected together, but spaced apart transversely of the post

Page 1, line 71. *delete* and act as *insert* transversely of the post and together act as a

Page 2, *delete* line 91. *insert* which together act as a load carrying member for the

THE PATENT OFFICE
9 May 1975

R 22593/11

30 porting the said translucent or transparent section or sections of the post.

One particular arrangement, together with a modification, will now be described, by way of example only, with reference to the accompanying drawings, in which:—

35 Figure 1 is a side elevation of a post with a circular globe or beacon as used for pedestrian crossings,

Figure 2 is a sectional elevation through part of the post shown in Figure 1,

40 Figure 3 is a side elevation of a post with a traffic direction sign,

Figure 4 is a sectional elevation through the upper end of the post and the traffic direction sign of Figure 3,

45 Figure 5 is a sectional elevation through the post shown in Figure 3,

tubes 11 are similarly secured to a plate 14 75 fixed to the bottom of an upper sleeve 15.

The tubes 11 are also connected together by two metal rings 16 and 17, the bores of which are approximately 4 inches in diameter and which are threaded over the pair of tubes 11. 80 These two rings 16 and 17, are spaced apart from one another and from the top and bottom sleeves 13 and 15, along the length of the pair of tubes 11.

Two lengths of translucent tube 18 and 19 85 and two lengths of opaque tube 20 and 21 are fitted end to end over and extending between the sleeves 13 and 15 and the two metal rings 16 and 17. These tubes 18, 19, 20 and 21 may be made of any convenient material, for 90 example plastics. In this example the four tubes are of polythene, the tubes 20 and 21

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COMPLETE SPECIFICATION

Improvements in Posts for Signs or the like

I, BERNARD WHITEHEAD, of 25, North Park Road, Bradford, 9, in the County of York, a British Subject, do hereby declare the invention, for which I pray that a patent may be granted to me, and the method by which it is to be performed, to be particularly described in and by the following statement:—

Posts on which road signs and the like are mounted are frequently painted in a distinctive pattern, for example, with alternating black and white bands, so as to attract attention. Many road signs and the like carried by such posts are illuminated signs, and consequently, in darkness when the signs are illuminated, the supporting posts are not so readily visible.

The present invention is, therefore, designed to provide an arrangement for illuminating posts such as those used for supporting road signs.

According to the invention, a hollow or tubular post in which at least one section of translucent or transparent material is interposed in the post, means for mounting an electric lamp within the said section, and a load carrying member, the said load carrying member having vertically spaced apart flanges, rings or brackets locating and supporting the said translucent or transparent section or sections of the post.

One particular arrangement, together with a modification, will now be described, by way of example only, with reference to the accompanying drawings, in which:—

Figure 1 is a side elevation of a post with a circular globe or beacon as used for pedestrian crossings,

Figure 2 is a sectional elevation through part of the post shown in Figure 1,

Figure 3 is a side elevation of a post with a traffic direction sign,

Figure 4 is a sectional elevation through the upper end of the post and the traffic direction sign of Figure 3,

Figure 5 is a sectional elevation through the post shown in Figure 3,

Figure 6 is cross-sectional view on the line VI—VI of Figure 5, and

Figure 7 is a detail elevation of the lower end of the post shown in Figure 3,

Referring to the drawings, in Figures 1 and 2 the invention is shown as applied to a common type of post which usually comprises a substantial base portion extending approximately 3 feet above the ground and a metal tube approximately 4 inches in diameter secured to the top of the base and extending to a height of approximately 7 feet, a road sign or a pedestrian crossing beacon, or the like being mounted on the top or upper portion of the said metal tube. The metal tube is usually painted in alternate bands of black and white, for example two white bands and two black bands. In the particular example shown in Figures 1 and 2, the base 10 supports a pair of metal tubes 11, the lower ends of which are secured to a plate 12 fixed to the top of a sleeve 13 which is mounted over the top end of the base 10.

The pair of metal tubes 11 are parallel and spaced apart and act as load carrying members for the post, and they are connected together at their lower ends by the plate 12 and the sleeve 13. The upper ends of the pair of tubes 11 are similarly secured to a plate 14 fixed to the bottom of an upper sleeve 15. The tubes 11 are also connected together by two metal rings 16 and 17, the bores of which are approximately 4 inches in diameter and which are threaded over the pair of tubes 11. These two rings 16 and 17, are spaced apart from one another and from the top and bottom sleeves 13 and 15, along the length of the pair of tubes 11.

Two lengths of translucent tube 18 and 19 and two lengths of opaque tube 20 and 21 are fitted end to end over and extending between the sleeves 13 and 15 and the two metal rings 16 and 17. These tubes 18, 19, 20 and 21 may be made of any convenient material, for example plastics. In this example the four tubes are of polythene, the tubes 20 and 21

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being black and the other two 18 and 19 being white translucent. One white translucent tube, the bottom tube 18, has its lower end enclosing the lower sleeve 13 and it has an annular flange 22 on its upper end encircling the lower ring 16. The black tube 20 has a counterbore in its lower end to fit over the annular flange 22 of the bottom tube 18 and its upper end which encircles the upper ring 17 has an annular flange 22a for engagement in a counterbore in the lower end of the other white translucent tube, the upper tube 19, the upper end of which encircles the lower end of the plate 14 and the upper sleeve 15.

The upper end of the tube 19 interengages with the lower end of the black tube 21 in a similar manner to the lower tubes, but the tube 19 is fitted over a tube 23 which is a close fit over the upper sleeve 15 and rests on the plate 14, and a collar 24 is mounted on the upper end of the tube 23.

The four tubes 18, 19, 20 and 21 are made to slide freely over the plate 14, the rings 16 and 17 and the lower sleeve 13, and they are retained in position by means of screws 25 extending through holes in the lower end of the tube 18 and the sleeve 13 into screw-threaded holes in a spigot 26 upstanding on the top of the base section 10, the screws 25 thus serving to retain the sleeve 13 and the tube 11 assembly on the base 10. Similarly a screw 27 serves for retaining the tube 23 on the upper sleeve 15.

Electric supply leads 28 extend upwardly through the base 10 and one of the tubes 11, and connecting wires 28a from the said leads 28 extend through openings in the said tube 11 and are connected to tubular lamps 29 disposed within the white translucent tubes 18 and 19. These tubular lamps 29 may be supported in any convenient manner, as they are light in weight they can be suspended by the electric connecting wires 28a, but if desired any convenient spring clips, wires or the like may be employed for attaching the tubular lamps to one or the other of the tubes 11 or to both tubes 11. A further electric connecting wire extends through the top of the said tube 11 and through the metal tube 23 to a lamp-holder (not shown) disposed within a globe 9 mounted on the collar 24 at the top of the tube 23. It will be understood that any other type of illuminated device or traffic sign may be mounted on top of the tube 23 instead of the globe 9.

It will also be understood that the number of metal rings and alternate opaque and translucent or transparent tubes may be varied from the numbers used in the particular example described above, according to requirements and/or the height of the post. Furthermore, such alternate tube arrangement may be continued to ground level instead of the 3 foot

base member 10 referred to above.

In this particular construction, the two tubes 18 and 20 are welded together, and similarly the two tubes 19 and 21 are welded together, and a screw 8 is passed through holes in the interengaged portions of the tubes 19 and 20 into engagement with a screw-threaded hole in the ring 17. By removing the screws 9 and 27, the upper tubes 19, 21 and 23 can be moved upwardly for access to the upper lamp 29 or can be completely removed if desired. Similarly, the lower tubes 18 and 20 can be freed for movement upwards by removing the screws 25. When the screws 25 are removed, however, the entire assembly will be free and can be removed from the base 10.

A modified construction is illustrated in Figures 3 to 6 in which the invention is applied to a shorter post carrying a traffic sign. In this construction, a tubular socket 30 is embedded in a concrete platform 31 in a road surface 32, the socket 30 being adapted to receive the lower ends of a pair of tubes 33 which are parallel and spaced apart similar to the tubes 11 of Figure 2. The two tubes 33 which act as load carrying members for the post are connected together by upper and lower rings 34 and 35, the lower ring 35 being spaced above the lower ends of the tubes 33 so that when the latter are inserted in the socket 30, the ring 35 will rest on top of the socket. A grub screw 36 is provided for locking the tube and ring assembly to the socket 30.

A translucent tube 37, in this example made of yellow or amber coloured polythene is fitted over the tubes 33 and the rings 34 and 35. The lower end portion of the tube 37 fits over the upper portion of the socket 30 as shown in Figure 5, and the upper end of the tube 37 terminates at the top of the ring 34. The tube 37 is retained in this position by means of a screw 38. Electric supply leads 39, from an underground electric cable, extend through the socket 30 and are connected to a tubular lamp 40 and its starter unit 41, the lamp 40 being suspended within the translucent tube 37.

The upper ends of the tubes 33 extend a short distance above the top of the ring 34 so as to serve for locating an illuminated traffic sign. This is illustrated in Figures 3 and 4, and comprises a translucent housing 42 which in this example is of laminated plastics or resin bonded glass fibre or a combination of these materials. The shape of the housing 42 will depend upon the purpose for which it is required, and is not necessarily of the shape shown in the drawings. The bottom of the housing 42 has a metal mounting plate 43 with two holes that are aligned with two similar holes in the bottom of the housing so as to fit over the projecting upper ends of the tubes 33 with the bottom of the housing resting on the ring 34. The bottom of the housing 42 also has a depending annular flange 44 adapted to receive the upper end of the trans-

lucent tube, as shown in Figure 4. A tubular electric lamp 45 has one end fitted into a lamp socket in the top of one of the tubes 33, and is connected to a starter unit 46 and the electric supply leads 39. The lamp 45 therefore projects into the translucent housing 42, as shown in Figure 4, for illuminating the housing. If desired, a second tubular electric lamp may be fitted into a lamp socket in the top of the other tube 33, such an additional lamp is indicated in chain dotted lines at 45a in Figure 4.

The housing 42 is secured in position by means of a bolt 47 passed through a hole in a plate 48 secured between the tubes 33, the bolt engaging with a screw-threaded hole in the mounting plate 43. To fit or remove the housing 42, it is first necessary to remove the grub screw 38 to free the translucent tube 37. The tube 37 can then be moved downwardly to permit access to the bolt 47, and after the bolt has been tightened to secure the housing in position, the tube 37 should be returned to its original position and be retained in that position by means of the screw 38.

In case there is a risk of unauthorised interference with this post and traffic sign, alternative arrangements may be made for retaining the translucent tube 37 in the raised position. One such arrangement is shown in Figure 7 in which a split clamping ring 50 is adapted to encircle and grip the translucent tube 37, and this split clamping ring is supported above the platform 31 by means of a conical skirt member 51 on which the clamping ring rests, or the skirt member 51 may be split axially and secured to the clamping ring. The two ends 52 of the clamping ring 50 are adapted to overlap one another when the ring is closed, and holes 53 in the said ends 52 will be aligned when the ends overlap, and a lock can be engaged with the aligned holes to prevent expansion of the clamping ring and so retain the clamping ring engaged with the translucent tube 37. If desired, the translucent tube 37 may have a flange or an annular groove for engagement by the clamping ring so as to positively prevent downward movement of the tube 37 when the clamping ring is locked.

WHAT I CLAIM IS:—

1. A hollow or tubular post in which at least one section of translucent or transparent material is interposed in the post, means for mounting an electric lamp within the said section, and a load carrying member the said load carrying member having vertically spaced apart flanges, rings or brackets locating and supporting the said translucent or transparent section or sections of the post.

2. A hollow or tubular post according to claim 1, in which the said load carrying member comprises a pair of parallel spaced apart tubes connected together at spaced apart positions along their length.

3. A hollow or tubular post according to claim 2, in which electric supply leads extend

through at least one of the said pair of tubes, the said leads passing through openings in the tube for connection to an electric lamp disposed within each translucent or transparent section of the post.

4. A hollow or tubular post according to any one of the preceding claims, in which the said load carrying member extends through two or more tubular sections of the post, at least one of the said sections being either translucent or transparent, the abutting ends of the said sections being adapted to inter-engage with one another.

5. A hollow or tubular post according to any one of the preceding claims, in which a translucent or transparent hollow member or casing is mounted on top of the post and an electric lamp is also mounted on top of the post to project into the said hollow member or casing.

6. A hollow or tubular post according to any one of the preceding claims, in which a sleeve secured on the lower end of the said load supporting member is adapted to be mounted in or on a socket member embedded in the road surface.

7. A hollow or tubular post according to any one of claims 1 to 5, in which a base member is adapted to be mounted in a road surface so as to project above the said road surface, and the lower end of the load supporting member is mounted on or in the said base member.

8. A hollow or tubular post according to claim 5, in which the said hollow member or casing is secured on top of the post by means disposed within the upper portion of the said tubular section of the post, the said tubular section being capable of downward displacement over the load supporting member to permit access to the said securing means, and releasable means being provided for locking the said tubular section in its normal or raised position enclosing the said securing means.

9. A hollow or tubular post according to claim 8, in which the releasable means for locking the said tubular section in its raised position comprises a clamping ring adapted to engage around the lower end portion of the said tubular section, and a member projecting downwardly from the clamping ring and adapted to engage with a fixed base.

10. A hollow or tubular post according to claim 9, in which the said clamping ring is split and its ends are adapted to overlap when in clamping position around the said tubular section so that a locking device can be engaged with the said overlapping ends of the clamping ring.

11. A hollow or tubular post according to claim 1, substantially as described with reference to Figures 1 and 2 of the accompanying drawings.

12. A hollow or tubular post according to

claim 1, as described with reference to
Figures 3, 4, 5 and 6 or as modified by
Figure 7, of the accompanying drawings.

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Leamington Spa: Printed for Her Majesty's Stationery Office, by the Courier Press
(Leamington) Ltd.—1963. Published by The Patent Office, 25 Southampton Buildings,
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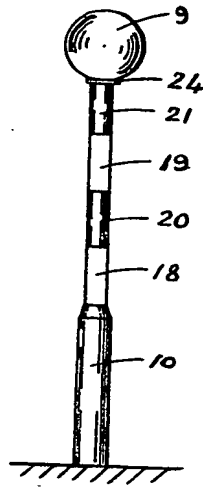


Fig. 1.

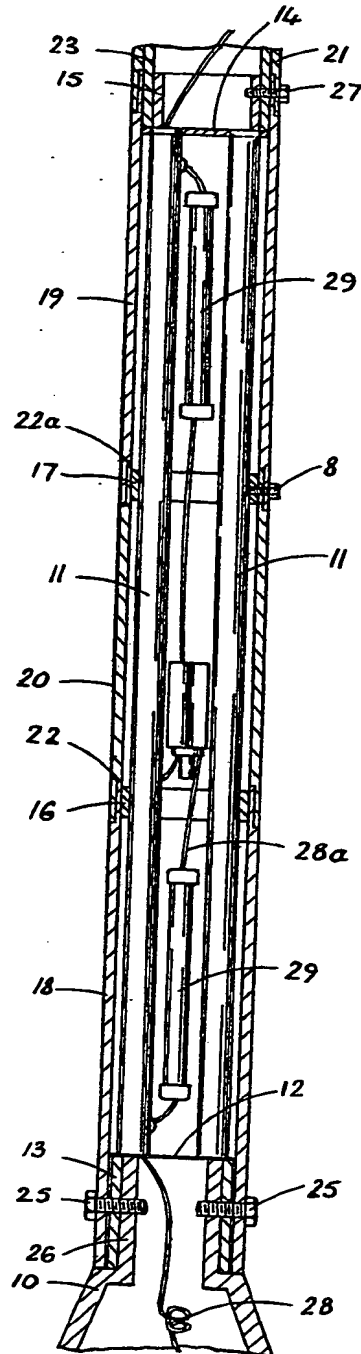
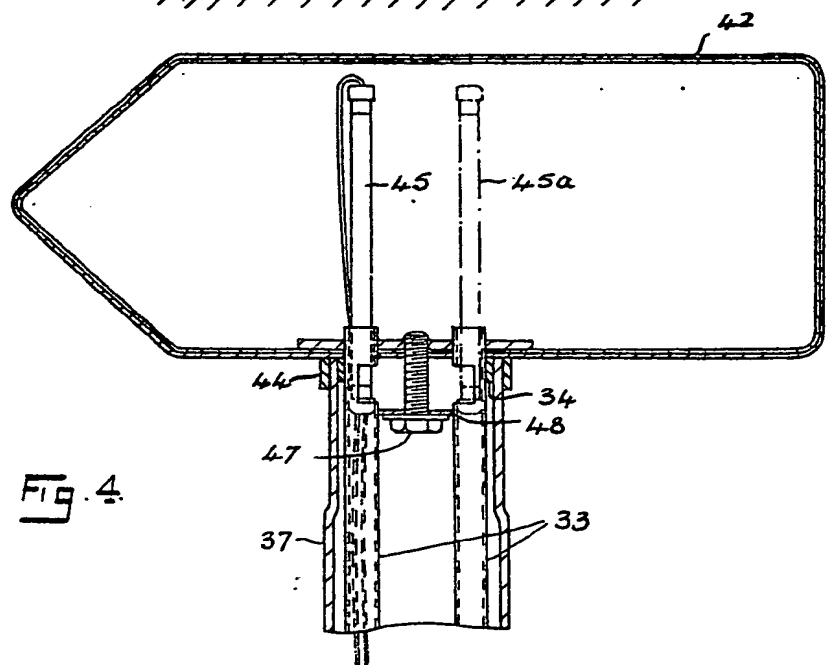
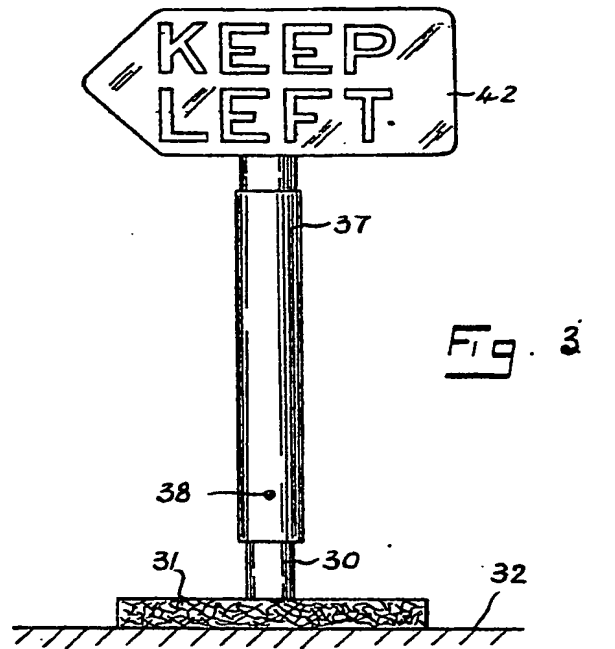


Fig. 2.



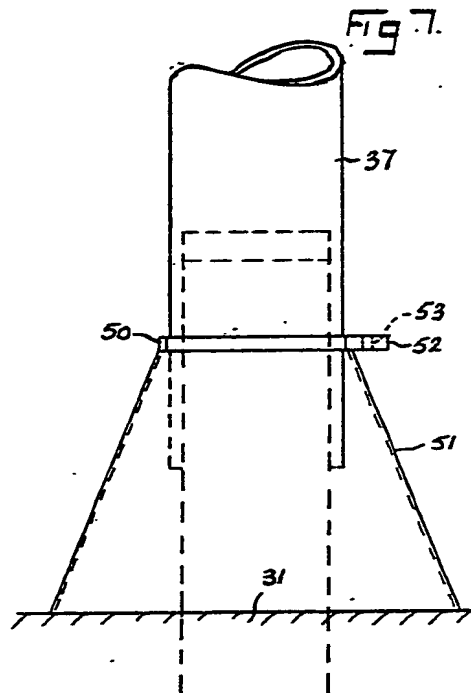
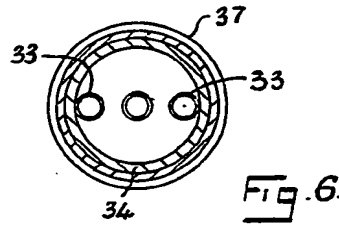
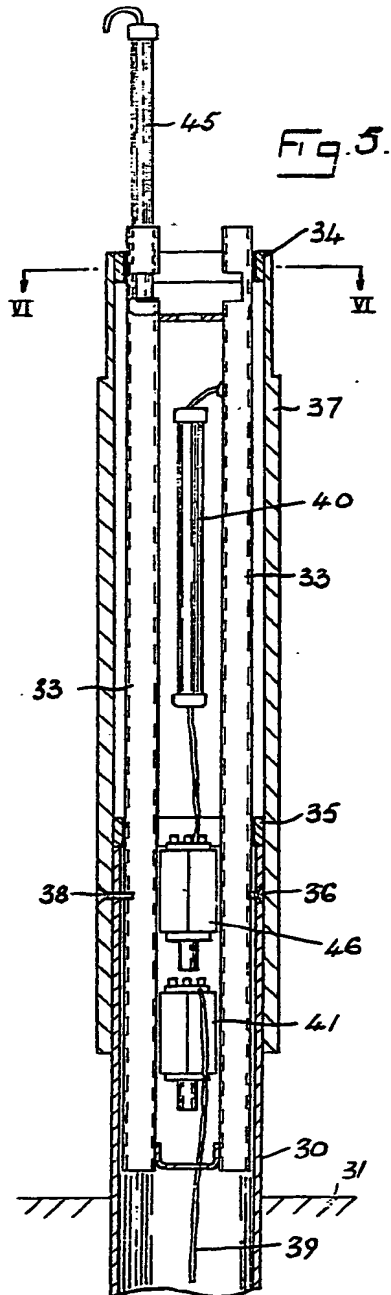
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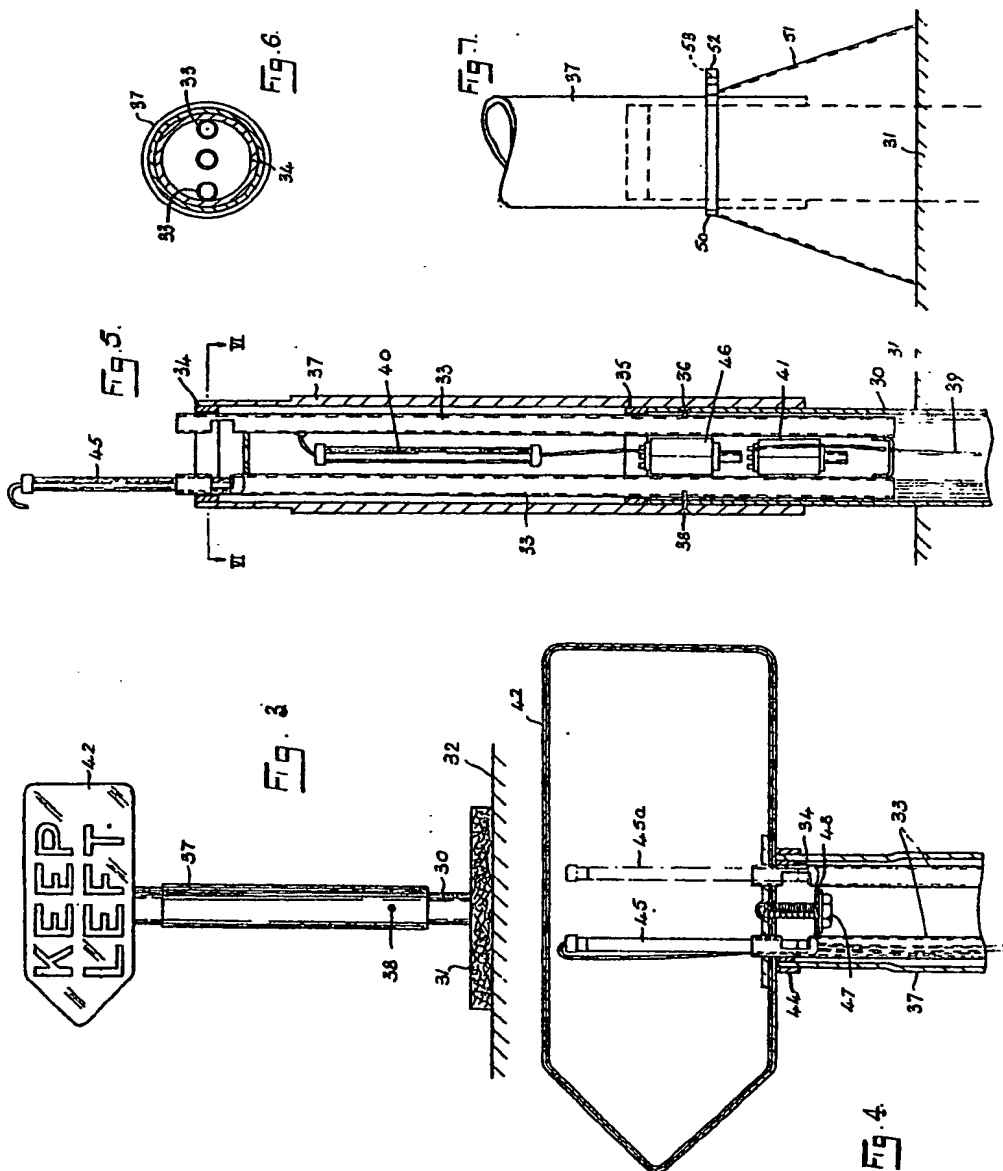
COMPLETE SPECIFICATION

3 SHEETS

*This drawing is a reproduction of
the Original on a reduced scale
Sheets 2 & 3*



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